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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/662,508	09/16/2003	Toru Takayama	12732-166001	1342
26171	7590	09/11/2006	EXAMINER	
FISH & RICHARDSON P.C.			LE, THAO X	
P.O. BOX 1022			ART UNIT	
MINNEAPOLIS, MN 55440-1022			PAPER NUMBER	
			2814	

DATE MAILED: 09/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	Application No. 10/662,508	Applicant(s) TAKAYAMA ET AL.	
	Examiner Thao X. Le	Art Unit 2814	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 July 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4,6,13-15,17,18,21-28,31,32,36 and 37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4,6,13-15,17,18,21-28,31,32,36 and 37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                            | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 31 July 2006 has been entered.

### ***Claim Objections***

2. Claim 1 is objected to because of the following informalities: Claim 1 line 11 "the film containing" should read as "the mixed film containing". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-4, 6, 13-15, 17-18, 21-28, 31-32, and 36-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2003/0001992 to Kawase et al. in view of US PUB 2004/0187917 to Pichler and JP 03-153859 to Fukumoto et al.

Regarding claims 1-2, Kawase discloses a light-emitting apparatus having a light-emitting device in fig. 24 comprising: a substrate 400 [0232], a thin film transistor (TFT) 502 [0240], an insulating film 541 [0250] over the TFT, a first electrode 546 [0255] a second electrode 548 [0257] over the first electrode 546 over the insulating film 544 and electrically connected to the TFT, fig. 24; an electroluminescent (EL) film 547 [0256] disposed between the first electrode and the second electrode; an inorganic insulating film 550 [0259] formed over the second electrode 548; wherein the insulating film 541 comprises a first insulating film 544 and a second insulating film 541 formed on the first insulating film 544; the first insulating film 544 comprises a material selected from the group consisting of acrylic, polyamide, and polyimide [0252], and the second insulating film 545 comprises silicon [0250].

But, Kawase does not disclose a light-emitting apparatus wherein a mixed film containing fluoroplastics and metallic oxide form over the second electrode, wherein the second insulating film comprises fluoroplastics.

However, Pichler discloses a liquid crystal display in fig. 5 comprising a luminescent layer 501 [0070], [0071], and [0101] formed over the first electrode 508, a second electrode 502 formed over the luminescent layer 501, a fluoroplastics 510 and 512 [0108] formed over the first and second electrodes 508/502, an inorganic layer (silicon oxide, silicon nitride) [0108] formed on the fluoroplastics. At the time the invention was made; it would have been obvious to one of ordinary skill in the art to use the inorganic layer formed on the fluoroplastics and inorganic layers teaching of Pichler with Kawase's device, because it would have and protected against exposure to water or air as taught by Pichler [0108].

With respect to a mixed film containing fluoroplastics and metallic oxide form over the second electrode, Fukumoto discloses a mixed film containing a fluoroplastics and metallic oxide, see constitution. At the time the invention was made; it would have been obvious to one of ordinary skill in the art to use the mixed metal oxide and fluoroplastics teaching of Fukumoto with Kawase's device, because it would have superior scratch resistance and high water repellency as taught by Fukumoto, see abstract.

Regarding claims 3-4, 17-18, Kawase discloses a light-emitting apparatus having a light-emitting device in fig. 24 comprising: a substrate 400 [0232], a thin film transistor (TFT) 502 [0240], an insulating film 544 [0252] over the TFT, a first electrode 546 [0255] a second electrode 548 [0257] over the first electrode 546 over the insulating film 544 and electrically connected to the TFT, fig. 24; an electroluminescent (EL) film 547 [0256]

disposed between the first electrode and the second electrode; a film 549 [0259] formed over the second electrode 548; and an inorganic insulating film 550 [0259] formed over the film 549; wherein the insulating film 544 comprises a first insulating film 544 and a second insulating film 545 formed on the first insulating film; the first insulating film 544 comprises a material selected from the group consisting of acrylic, polyamide, and polyimide [0252], and the second insulating film 545 comprises silicon [0250].

But, Kawase does not disclose a light-emitting apparatus wherein a film containing fluoroplastics form over the second electrode and wherein the second insulating film is mixed film comprising fluoroplastics and metallic oxide.

However, Fukumoto discloses a mixed film containing a fluoroplastics and metallic oxide, see constitution. At the time the invention was made; it would have been obvious to one of ordinary skill in the art to use the mixed metal oxide and fluoroplastics teaching of Fukumoto with Kawase's device, because it would have superior scratch resistance and high water repellency as taught by Fukumoto, see abstract.

Regarding claims 13-14, Kawase does not disclose the light emitting apparatus wherein the film containing fluoroplastics is one type of polymer selected from polytetrafluoroethylene.

However, Fukumoto discloses the film containing fluoroplastics is one type of polymer selected from polytetrafluoroethylene, see constitution. At the time the invention was made; it would have been obvious to one of ordinary skill in the art

to use the fluoroplastics teaching of Fukumoto in Kawase's device for the same reason as discussed in the above claims 1-2.

Regarding claims 6, 15, 21-22 and 36-37, Kawase does not disclose the light emitting apparatus wherein a ratio of the metallic oxides in the mixed film monotonically increases from a portion of the mixed film distant from the first electrode to a portion of the mixed film close to the first electrode.

However, Fukumoto discloses an fluoroplastics layer and an metallic layer; it would have been obvious to one of ordinary skill in the art to use the mixed film comprising fluoroplastics and metallic oxides of Fukumoto as claim because it has been held that where the general conditions of the claims are discloses in the prior art, it is not inventive to discover the optimum or workable range by routine experimentation. See *In re Aller*, 220 F.2d 454, 105 USPQ 233, 235 (CCPA 1955).

Regarding claims 23-28, Kawase discloses the light emitting apparatus is selected from the group consisting of digital camera, laptop computer, mobile computer, portable image reproducing device, goggle type display, video camera and cellular phone [0005].

Regarding claims 31-32, Kawase does not disclose the light emitting apparatus wherein the film containing fluoroplastics has irregularities.

However, Fukumoto discloses the light emitting apparatus wherein the film containing fluoroplastics that is substantially the material claimed; the structure recited in prior art is substantially identical to that of the claims, claimed

properties or functions are presumed to be inherent. Or where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a *prima facie* case of either anticipation or obviousness has been established. *In re Best*, 195 USPQ 430, 433 (CCPA 1977) and MPEP 2112.01.

### ***Response to Arguments***

6. Applicant's arguments filed 7/31/06 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thao X. Le whose telephone number is (571) 272-1708. The examiner can normally be reached on M-F from 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael M. Fahmy can be reached on (571) 272 -1705. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.



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For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, consisting of a stylized 'T' followed by a horizontal line and a vertical stroke.

Thao X. Le  
31 Aug. 2006